My diploma thesis Surfaces of Building Practice deals with the basic properties of surfaces, their mathematical description, categorization, and application in technical practice. Each studied surface is defined and its process of construction and parametrical description is listed. The thesis studies selected types of surfaces in details – these surfaces include surfaces of revolution, ruled surfaces, screw surfaces, and translational surfaces. An application of each studied surfaces is shown and each surface is accompanied with a picture. The thesis also contains a picture attachment with photographs of buildings from all over the world on that the studied surfaces visibly appear. The diploma thesis has an attached DVD that contains studied surfaces as models created in the Maple program, presentation with animations showing creation of selected surfaces, and the diploma thesis in the electronic format. Apart from these, the DVD contains source files of all pictures in the thesis. The thesis is outlined as an educational text for the teachers and the students of descriptive and differential geometry, and for those interested in architecture as well.